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Active Therapy for Cerebrovascular Insufficiency A Symposium

• Presented by the Ochsner Foundation Hospital Staff at a joint scientific meeting with the Orleans Parish Medical Society, Ochsner Foundation Hospital, November 10, 1958.

ALTON OCHSNER, M.D., MODERATOR
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THE subject of the symposium this evening is one that is of interest to all of us, because as we grow older, we become more susceptible to cerebrovascular insufficiency. Until recently, however, this condition was very much as Charles W. Warner considered the weather, "Everybody talks about it, but nobody does anything about it." Fortunately, this is no longer the case because, although many patients have irreparable cerebrovascular disease, many others have lesions that are amenable to definitive therapy and some can even be completely rehabilitated.

Clinical Diagnosis of Cerebrovascular Insufficiency

• A neurologist reviews the causes and the symptoms and signs of cerebrovascular insufficiency.

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THE symptoms of a stroke or an impending stroke are becoming more and more common as the life span of the general population is increased. Such symptoms represent a frequent reason for consulting the family physician. The stroke may be the result of cerebral thrombosis or cerebral hemorrhage. The former is usually associated with a severe degree of arteriosclerotic changes in the cerebral

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blood vessels, and the latter with vascular hypertension. In addition to these localized lesions (or "strokes"), we have recently become more and more alerted to the fact that certain cerebral symptoms, which are not due to such well localized lesions, are the result of intermittent cerebrovascular insufficiency, that many of these symptoms are episodic, and that prolonged administration of anticoagulant drugs often prevents recurrence of the neurologic symptoms and thus reduces the mortality rate or at least delays death.

Factors in Pathogenesis

Representing 2 per cent of the body weight, the brain normally receives about one-sixth of the heart's output of blood and consumes nearly 20 per cent of the oxygen utilized by the body as a whole. The brain is completely dependent upon oxidative energy, and therefore, upon a continuous supply of oxygen. Since the brain cannot, or at least, does not appear to utilize fats or proteins for energy, the continuous supply of glucose is equally essential to normal cerebral activity.

In man, the brain is supplied with blood entirely by means of the paired internal carotid and vertebral arteries, and there are no really significant anastomoses with the extracerebral arteries, such as exist in lower mammals. The rate of cerebral blood flow, like that of the circulation through any organ, depends on only two factors, although each of these may in turn be the resultant of a host of other variables. These two factors are: (1) the pressure head or the difference between the arterial and venous pressures at the level of the cranium, and (2) the resistance or hindrance imposed on the flow of blood through the vessels of the brain. Obviously, the latter factor is the commonest cause of cerebrovascular insufficiency, the usual culprit being atherosclerosis. Symptoms referable to an area of the brain ensue when a defect in the collateral circulation to that area arises.

Symptoms and Signs

The most striking feature of generalized cerebral disorder associated with arterial ischemic disease of the brain due to atherosclerosis is progressive mental deterioration, which may be punctuated by occurrence of cerebrovascular accidents. The hypertension is a diffuse process with local involvement of areas of the brain and is characterized by rapid fluctuations in the severity of symptoms.

We must accustom ourselves to thinking in terms of caroticobasilar arterial insufficiency because of the configuration of the circle of Willis, and because occlusions in the carotid system may even be "silent" if the basilar system and the circle of Willis afford effective collateral circulation. However, as far as symptoms are concerned, it is convenient to describe a syndrome of internal carotid arterial insufficiency and a syndrome of basilar arterial insufficiency. In cerebrovascular insufficiency, cerebral infarcts result from tissue anoxia.

Thrombosis of an internal carotid artery may result in massive hemiplegia without warning, occasionally with blindness in the ipsilateral eye; it may cause no symptoms at all (if the collateral circulation is efficient), or it may give rise to gradually developing, contralateral hemiplegia, initially more severe in the hand and face, and often associated with aphasia. Headache on the side of the diseased artery may be severe, and thus imitate a brain tumor when onset of the hemiplegia is gradual.

Intermittent internal carotid insufficiency due to narrowing of the artery is denoted by periodic attacks of unilateral impairment of motor or sensory function. Aphasia may occur when the dominant hemisphere is involved. Occassionally, vision in the eye on the side of the affected artery is impaired. Each attack begins abruptly, usually lasts from five to fifteen minutes, and may recur at irregular intervals for many months or years. Neurologic deficit is not noted after a single attack but frequent episodes result in some degree of neurologic deficiency. These transitory episodes result from transient ischemia due to the fact

that the collateral circulation has become inadequate.

In total thrombosis of the basilar artery, all extremities are usually affected. Frequently, consciousness is clouded and there are symptoms arising from dysfunction of the various bulbar nuclei affecting the functions of speech, swallowing, ocular movements, and the like. Massive occlusion of the basilar artery is commonly fatal, but the range of duration of survival is wide.

Intermittent insufficiency of the basilar artery causes transitory attacks of neurologic dysfunction, which begin suddenly and ordinarily last from five to fifteen minutes. Abnormal neurologic signs are usually detectable during such an episode but disappear at the end of the attack; repeated episodes may produce a slight neurologic deficit. Symptoms, which vary according to the site of insufficiency, include amaurosis, ptosis, clouding of consciousness, mental confusion, vertigo, nausea, vomiting, unsteadiness, dysarthria, dysphagia, headache, sensory phenomena, and paretic phenomena. The same symptom on opposite sides of the body, occurring in definite attacks, suggests the diagnosis.

Diagnosis

In suspected cases of occlusion of the carotid artery, the diagnosis can sometimes be confirmed by palpation of the vessels of the neck. If the common carotid artery is also involved, absence of pulsation at the level of the bifurcation may be readily demonstrable. If only the internal carotid artery is involved, the carotid pulsation may be more bounding on the side of the occlusion when the neck is palpated, since the blood cannot flow through the occlusion. Conclusions drawn from palpation of these arteries, however, are often unreliable. Palpation of the internal carotid artery from the pharynx is a test most examiners have found unsatisfactory. Use of the ophthalmodynamometer, in skilled hands, has a high degree of accuracy and is a valuable test for confirming a suspected diagnosis of occlusion of one of the internal carotid arteries. Compression of the opposite carotid artery may be followed by immediate impairment of consciousness; this test should be used with great restraint. The diagnosis can be absolutely confirmed by carotid arteriography, and in the case of basilar arterial insufficiency, by vertebral arteriography.

Historical Note

This number completes the first half year of our Journal, and we have the gratification to announce that we have already the most satisfactory assurances of the success of the enterprise. We are now convinced that we did not overrate the talent and energy of the Southern Medical Profession, when we projected a work, which we believe is to redound so much to its honour and improvement.

Our subscription list, from a very humble beginning, is constantly increasing, and has already attained an extent that will ensure the continuation of the work. A good many of our subscribers are still in arrears, but we are pleased to say that our receipts have been sufficient to defray all our current expense.
N. O. M. & S. J. 1:214 (October 15) 1844.

Carotid and Vertebral Angiography

• A definitive method of diagnosis in cerebrovascular insufficiency is described, together with its advantages and results.

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ANGIOGRAPHY has become a commonly employed procedure because it assists in establishing a diagnosis of cerebrovascular insufficiency and aids in the selection of patients for operation by revealing the location of kinked, stenotic, or occluded arteries. Thus, angiography is indicated in the majority of patients who have apoplexy, as well as those who have transient recurrent episodes of weakness or numbness of an extremity, staggering, dysphagia, homonomous hemianopsia, confusion, or unconsciousness. The procedure is contraindicated in patients who are extremely senile or have uremia, severe hepatic disorders, or hypersensitivity to the contrast medium. We do not consider old age in itself a contraindication.

Technic

Carotid Angiography — Most patients with cerebrovascular insufficiency require only bilateral visualization of the carotid arteries. The amount of premedication is determined by the age and weight of the patient. Usually, the average adult receives 1/6 gr. of morphine sulfate, 1/150 gr. of atropine sulfate and 2 gr. of sodium luminal forty-five minutes before angiography. After injection of a local anesthetic, the common carotid artery is entered just above the clavicle, with an 18 gauge needle. Usually this is easily accomplished and well tolerated by most patients. Two injections on the side of the lesion and one injection on the other side, of 10 cc. of 50 per cent Hypaque Sodium® are usually necessary to demonstrate the carotid systems bilaterally.

From the Section on Neurosurgery, Ochsner Clinic, New Orleans.

Vertebral Angiography — In patients having symptoms referable to the basilar artery, such as dizziness, numbness on both sides of the body, staggering, ataxia, diplopia, blurred vision, dysarthria, and dysphagia, it is necessary to perform vertebral angiography as well as carotid angiography. The brachial artery or its ulnar branch is exposed after administration of premedication and injection of a local anesthetic. A No. 8 cardiac catheter is passed up the brachial artery into the subclavian artery to the approximate point of origin of the vertebral artery. Ten cubic centimeters of Hypaque is injected to demonstrate the vertebral-basilar system. After the catheter has been removed, the artery is sutured so that its lumen is patent. If the vertebral artery proves to be obstructed, the procedure must be repeated on the opposite side. This method of angiography is safe, whereas direct insertion of a needle into the vertebral artery could be dangerous, if the other vertebral artery is stenosed or occluded.

How Safe Is Angiography?

Many complications of cerebral angiography, including death, have been reported. These have been due mainly to the irritating effects of the contrast medium, most reports having appeared during the period when Urokon® and Diodrast® were used. Today, when Hypaque is used almost exclusively, few severe or minor complications occur. The primary disadvantage of Hypaque is the burning sensation experienced for about forty-five seconds in the neck, face, and head when the dye is injected. In more than 200 cerebral angiograms made at the Ochsner Clinic with Hypaque as the contrast med-

ium, there were 5 cases of hemiparesis, which subsided in less than four hours. Three patients had convulsions, and in a few urticaria developed. A high percentage of patients complained of a sore neck the next day, due to extravasation of blood into the peri-arterial tissues of the neck. Consequently, we consider angiography a safe procedure, and use it not only in patients with cerebrovascular disease, but also in those suspected of having intracranial tumors or hematomas.

Interpretation of Angiograms

Arteriosclerosis, which affects the cervical and intracranial arteries with equal frequency, is well demonstrated by angiography because the vessels become tortuous. In fact, kinking may be so sharp as to cause relative stenosis. In the neck, and more rarely in the head, the media becomes sufficiently weakened to lead to formation of an aneurysm. By angiography atheromatous plaques, which are narrowing the lumen and giving rise to

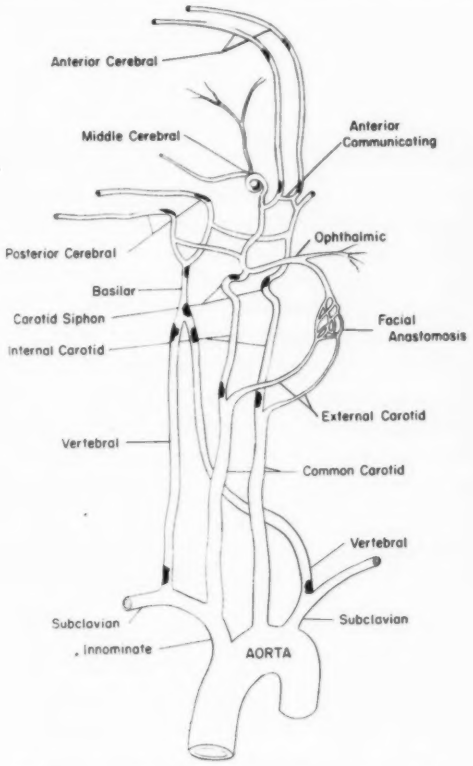

Figure 1. Common sites of stenotic atheromatous plaques in the cervical and cerebral arteries.

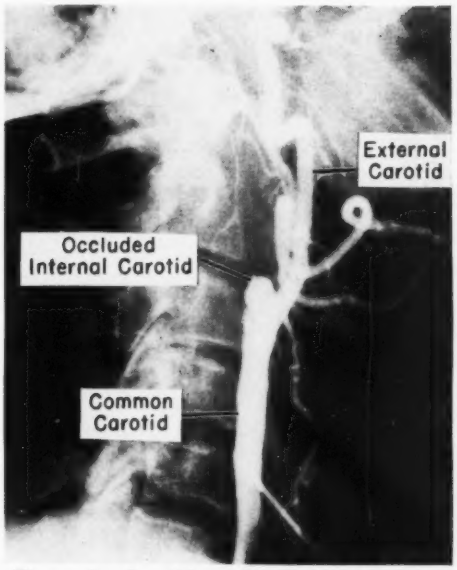

Figure 2. Carotid angiogram in which complete occlusion of the internal carotid artery just distal to its origin is demonstrated while the external carotid artery fills.

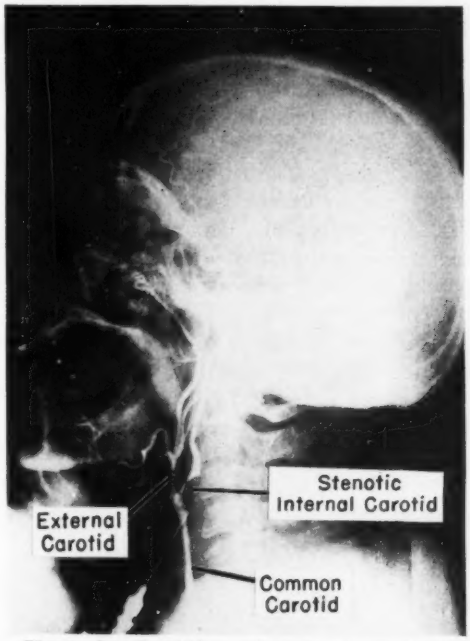

Figure 3. Carotid angiogram demonstrating a large mural plaque creating severe stenosis of the internal carotid artery at its origin.

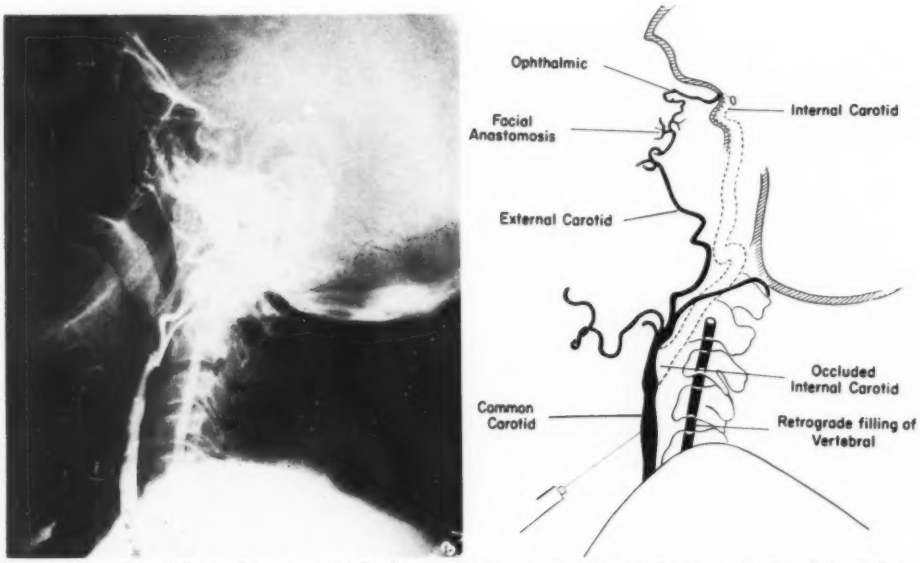

Figure 4A. Carotid angiogram which demonstrates complete occlusion of the internal carotid artery at its origin. Collateral circulation between the external carotid artery and cerebral circulation is visualized by the contrast medium which fills the facial anastomosis and the ophthalmic artery which empties into the internal carotid artery intracranially. Also dye has passed in a retrograde fashion down the common carotid artery into the subclavian artery and can be seen filling the vertebral artery in the neck. 4B. Schematic representation of angiogram shown in Figure 4A.

cerebral insufficiency and occasionally to cerebral embolism, may also be demonstrated. It is interesting that these stenosing or occluding plaques have certain sites of predilection [1] (Figure 1). The internal carotid artery is involved most often at its origin and at the clinoid process (Figures 2-4). The first major bifurcation of the middle cerebral artery is a common site for occlusion. Stenosis of the anterior cerebral artery occurs usually at its origin or as it curves around the genu of the corpus callosum. The vertebral arteries are usually stenosed or obstructed at their origin or near their junction into the basilar artery. The basilar artery is involved in the first centimeter or at the bifurcation into the posterior cerebral arteries, which becomes stenosed as these arteries wind around the cerebral peduncles. As the main channels become stenotic, the collateral channels begin to take over, with occasional complete reversal of blood flow in the collateral channels. The final clinical picture is determined by the adequacy of these collateral channels. Fortunately, a large percentage of the partially obstructive lesions demonstrated by angiography are located extracranially and are amenable to surgical correction.

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Reconstructive Surgical Procedures for Cerebrovascular Insufficiency

• In approximately 25 per cent of patients with acute cerebrovascular insufficiency surgical treatment is of benefit because the stenosis or occlusion is in extracranial great vessels.

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RECONSTRUCTIVE surgical procedures in selected patients with cerebrovascular insufficiency may provide amelioration or complete relief of symptoms. This is possible because the most important sites of stenosis or occlusion are the great vessels outside the cranium in approximately 25 per cent of patients with acute cerebrovascular ischemia, and in patients having recurrent "little strokes," the incidence is undoubtedly higher. On careful postmortem examination of the entire cerebrovascular blood supply of 83 consecutive patients with atherosclerotic cerebrovascular insufficiency Hutchinson and Yates [1] found no evidence of vascular stenosis within the cranium and significant stenosis of one or more major vessels in the neck of 40 patients. Of these, 10 had lesions of the carotid artery alone, 7 of the vertebral artery alone, and 23 of both the carotid and vertebral arteries. Two important principles are thus established: (1) Atherosclerotic cerebrovascular insufficiency is often associated primarily with stenotic or occlusive lesions in large arteries in the neck, and (2) such lesions are frequently multiple. The commonest sites of atherosclerotic involvement of the carotid vessels are the proximal segment and the siphon of the internal carotid artery. The vertebral artery is frequently involved at its proximal orifice. Lesions may also occur in the common and innominate arteries.

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Etiology

Atherosclerosis is the commonest cause of significant stenosis of the extracranial vessels supplying the brain, but stenosis may result from trauma, a vascular anomaly, chronic arteritis (Takayasu's disease),[2] aneurysm, neoplasm, or infection. Acute inflammation may precipitate acute thrombosis, particularly in a child. Constrictive periarterial fibrosis may develop after an infection. Of our 18 cases 14 were due to atherosclerosis, 2 to anomalous vessels, 1 to trauma and 1 to infection.

Diagnosis

Accurate diagnosis of the location and extent of stenotic lesions is essential to intelligent planning of surgical treatment. Careful physical examination and sharply defined arteriograms are mandatory. Bilateral carotid arteriography is indicated even if symptoms are unilateral. Bilateral vertebral arteriography is indicated if "basilar" vascular insufficiency is suspected, and thoracic aortography should be performed if there is evidence of stenosis of the branches of the aortic arch. Complete mapping of all vessels is highly desirable.

Surgical Therapy

Surgical procedures to restore circulation include thrombo-endarterectomy,[3] excision and suture, excision and graft, bypass graft,[4] correction of a vascular anomaly, arterial unbridling and excision of an extrinsic constrictive tumor. If the wall of the vessel has been seriously damaged by trauma or disease, the affected

segment must be removed and circulation restored by direct arterial suture or insertion of a graft. An extrinsic tumor that constricts the arterial lumen must be excised. If a neoplasm has invaded the vascular wall, the involved segment may be removed and a graft inserted. If the vascular wall is intact but the lumen has been occluded by atheromas, endarterectomy or a bypass grafting procedure may be performed. Transposition of the internal to the external carotid artery is unsatisfactory.

Results of reconstructive surgical procedures can be successful only if there is an open distal vessel. This is present in almost all cases of stenosis, and in most cases of occlusion below the internal carotid artery. Unfortunately, occlusion of even the proximal segment of the internal carotid artery is rapidly followed by thrombosis extending well up into the cranium. Even though a long thrombus can be extracted from such a vessel, it is rarely possible to restore circulation.

Superior cervical sympathectomy is, in our opinion, valuable and we regularly perform it whenever vascular reconstruction cannot be effected. Prolonged anticoagulant therapy is frequently helpful for symptoms related to associated intracranial vascular lesions.

Cerebral Protection During Operation—If open vessels must be occluded during vascular reconstruction, care must be taken not to damage the brain. This may be done by reducing the cerebral requirement for oxygen by use of generalized hypothermia.[3] This has proved effective in our experience but it is a clumsy method that requires general anesthesia. Actually, in most instances the patient will tolerate the necessary operative vascular occlusion even at normal temperatures. With local anesthesia serious cerebrovascular insufficiency can be detected at once. With general anesthesia this is not true. If a local anesthetic is employed and the patient remains conscious during a trial period of vascular occlusion, special protection is not needed. If temporary occlusion causes unconsciousness, the blood flow to the brain must be supplemented during the period of operative occlusion. This may be done by insertion of a temporary bypass shunt, by mechanical assistance to the distal circulation, or simply by distal transfusion of arterial blood. This last method has proved simple and entirely satisfactory in our experience. If cerebral protection is necessary, the patient is given one or two bottles of stored blood intravenously while a similar quantity of arterial blood is withdrawn into heparin bottles from the common carotid artery. This blood is set up for transfusion into the distal internal carotid artery through a large right-angle needle. As soon as the vessels have been occluded, the arterial blood is pumped into the distal vessel at a rate sufficient to keep the patient conscious and alert. The quantity of blood required is not large even if tolerance to vascular occlusion is extremely poor. For instance, in one of our patients whose contralateral internal carotid vessel was thrombosed and who became unconscious after thirty seconds of trial vascular occlusion, only 550 ml. of blood was required during occlusion of the common, internal and external carotid arteries for fifteen minutes. This is a rate of 37 ml. per minute. In not one of our 18 patients have we had any evidence of cerebral damage during the operation.

Clinical Series

We have attempted reconstruction of 23 internal carotid or common carotid arteries in 18 patients. Excision with suture was performed once, excision with graft insertion once, transposition of a vessel twice and unbridling once. Endarterectomy was performed on 18 vessels in 13 patients. In addition, several external carotid arteries were endarterectomized. Superior cervical sympathectomy was performed in 9 of these, bilaterally in 4.

In one patient a segment of an extremely redundant and kinked internal carotid artery was excised with benefit. One patient was comatose on admission several hours after a severe injury which resulted

in acute occlusion of the left common carotid artery. The completely thrombosed segment of the intrathoracic portion of the vessel was excised and a crimped nylon graft was inserted. The graft functioned well but the patient died the next day from cerebral infarction, which occurred before the circulation was restored. In our first patient the distal open internal carotid artery was anastomosed to the proximal end of a patent external carotid artery. Improvement was modest and transient. This operation has generally proved unsatisfactory.

A left-handed man, aged 51 years had had repeated attacks of syncope, paresthesias of the left side of the face and left hand, weakness of the left hand, blurring of vision in the right eye, and mild motor aphasia for two weeks before admission. The symptoms varied with changes in position. Pulsation of the right common carotid artery was extremely weak. At operation (Figure 1) the origin of the right subclavian and right common carotid arteries was found to be anomalous. The right common carotid artery arose from the left side of the aortic arch. As the vessel passed to the right, it was apparently severely constricted between the trachea and the sternum. It was possible to transpose the vessel to its normal position on the ascending arch (Figure 1). All symptoms were promptly relieved and the patient has remained asymptomatic since operation ten months ago.

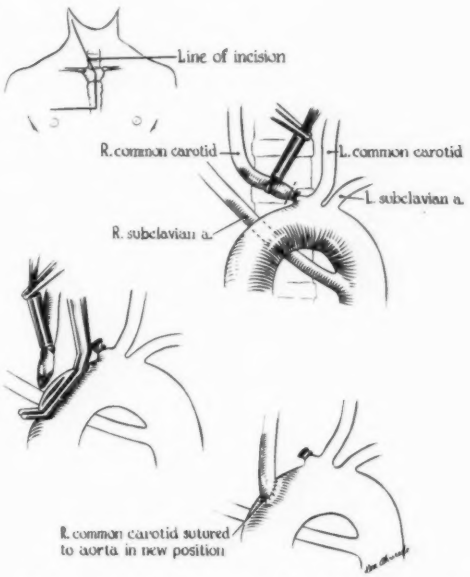
Line of incision
R. common carotid
L. common carotid
L. subclavian a.
R. subclavian a.
R. common carotid sutured to aorta in new position

Figure 1. Anomalous origin of right common carotid artery from left side of aortic arch. Symptoms of cerebrovascular insufficiency completely relieved by transposition of vessel to normal origin from right side of aortic arch.

A woman, aged 43 years, had had weakness of the right leg for six months and increasing weakness and paresthesias of the right arm for four weeks. Definite residual neurologic signs were present. Concentric narrowing of the left internal carotid artery was noted in the arteriogram (Figure 2A). At operation periar-

Figure 2. (A) Arteriogram demonstrating stenosis of left internal carotid artery due to periarterial fibrosis. (B) Arteriogram demonstrating a normal lumen one year after arterial unbridling.

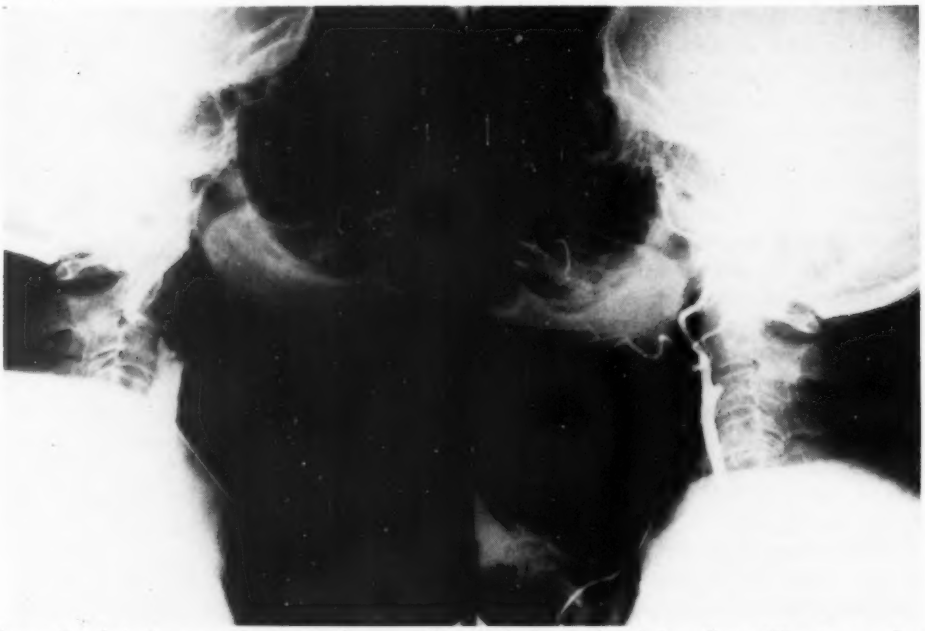

Figure 3. Arteriograms demonstrating complete occlusion of left internal carotid artery and severe stenosis of right internal carotid artery. Pronounced clinical improvement followed right internal carotid endarterectomy and bilateral cervical sympathectomy.

terial fibrosis was found. Unbridling restored a normal lumen (Figure 2B), and has resulted in complete relief of symptoms for thirty months.

Of the 13 patients on whom endarterectomy was performed, 3 had unilateral occlusion, 5 had unilateral stenosis, 3 had unilateral occlusion and contralateral stenosis (Figure 3), 1 had bilateral occlusion and 1 had bilateral stenosis. Of the 8 vessels completely occluded circulation was restored in only one (Figure 4). As far as is known a normal lumen has been restored in all 10 stenotic arteries (Figure 5). We have objective postoperative proof of the state of 12 of the 18 vessels. In no instance has this been different from that at the conclusion of the operation. Surgical technic must be meticulous if occlusion of such small vessels after endarterectomy is to be prevented. With adequate cerebral protection the operation need not be performed hurriedly. We always visualize the distal margin of the endarterectomized segment and either tack down the distal intimal flap or incorporate it in the vascular suture. Transverse incisions are closed with interrupted sutures, and extreme care is taken not to compromise the lumen in closing a longitudinal incision. Failures reported by others must frequently be due to faulty or hasty technic. We have not used postoperative anticoagulant therapy.

As indicated by other discussions in this panel, we believe that other indirect therapeutic measures are helpful if vascular reconstruction is impossible, or vascular insufficiency is due to inaccessible lesions. In our 13 patients on whom endarterectomy was done 9 also had superior cervical sympathectomy, bilaterally in 4. In one patient anticoagulant therapy was begun in the postoperative period and in 3 patients this was begun later for residual or new symptoms.

The results of treatment in this series have been gratifying and encourage a continued vigorous diagnostic and therapeutic approach. There was only one postoperative death; the patient was admitted in a comatose condition after severe trauma and acute occlusion of the common carotid artery. Death from cerebral in-

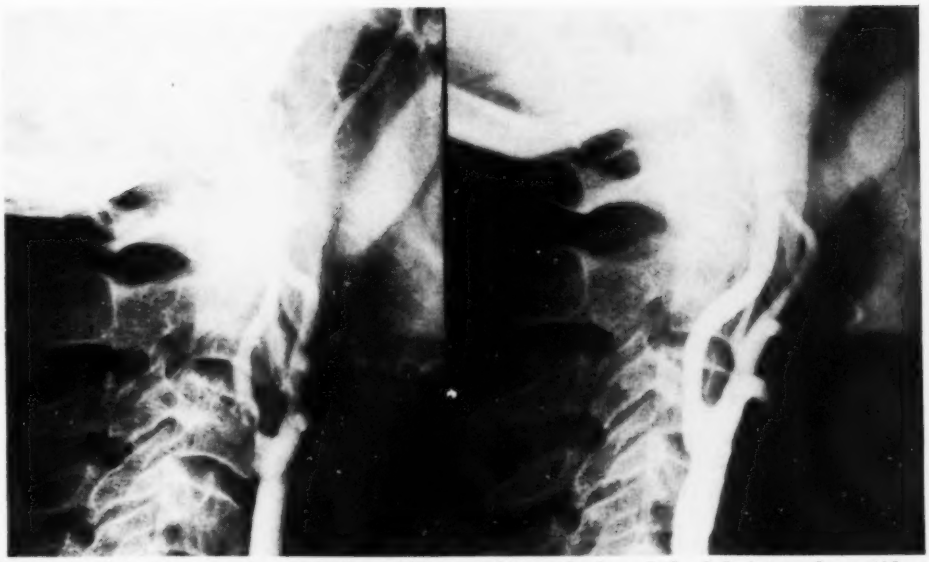

Figure 4. Arteriograms demonstrating (A) complete occlusion of the left internal carotid artery (B) relieved by endarterectomy.

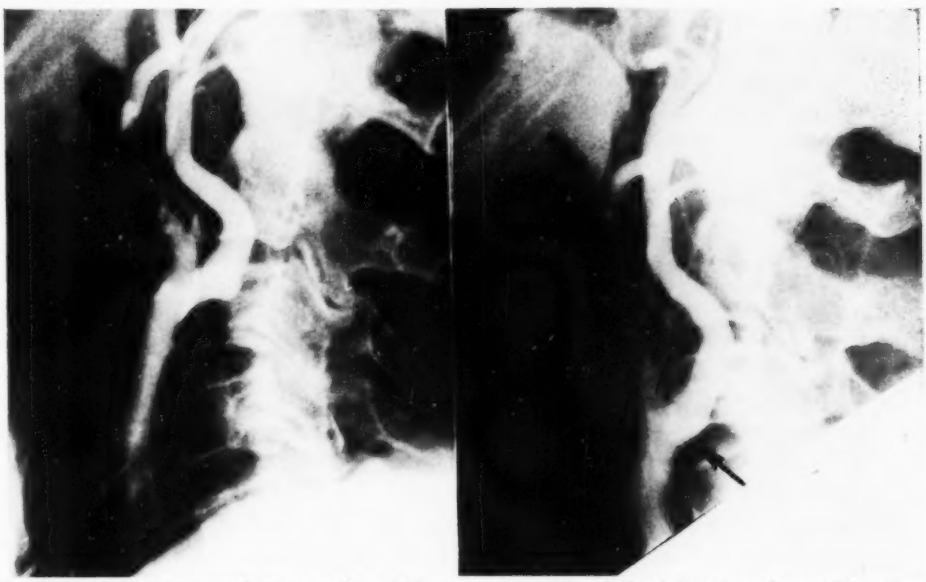

Figure 5. Arteriograms demonstrating (A) severe stenosis of the left internal carotid artery (B) relieved by endarterectomy.

farction occurred in spite of vascular reconstruction achieved ten hours after the injury. There was no evidence of cerebral damage during operation on any of the patients. In 2 patients complications developed in the postoperative period temporarily aggravating cerebral symptoms. In one, distal thrombosis or embolism occurred thirty hours after attempted endarterectomy of a completely occluded internal carotid artery. In the other, severe hypotension developed when the patient sat up on the second day after bilateral internal carotid endarterectomy and bi-

TABLE 1
RESULTS OF SURGICAL RECONSTRUCTION FOR CEREBROVASCULAR INSUFFICIENCY

Lesion	Cases	Results			
		Died	Unimproved	Improved	Asymptomatic
Complete Occlusive (1 bilateral)	5	1	2	1	1
Stenosis (1 bilateral)	8		1	3	4
Occlusion and contralateral stenosis	2			2	
Total	15	1	3	6	5

lateral cervical sympathectomy. In both of these instances cerebral damage occurred with subsequent recovery. Three patients were treated too recently to evaluate the results. In the other 15 the follow-up period ranged from four to thirty months. The results in these 15 cases are shown in Table 1.

It is to be noted that improvement occurred in 2 of 5 patients with complete occlusion, and in 9 of 10 with partial occlusion. In view of the difficulty in restoring blood flow after complete occlusion of the internal carotid artery, the 2 good results in this group merit comment. In one of these patients, aged 57 years, progressive and finally complete right hemiplegia and complete motor aphasia developed. At operation, thirty hours after onset of symptoms, the left internal carotid artery was found to be completely occluded (Figure 4A) but distal thrombosis had not yet occurred. Endarterectomy resulted in successful restoration of the lumen (Figure 4B) and a gratifying degree of neurologic recovery has occurred. The other patient had, in the course of two weeks, experienced four attacks characterized by sudden faintness, turning green, sweating profusely, inability to speak, and falling of the right arm to the side. The last attack, which also involved the right leg, lasted thirty minutes. On examination expressive aphasia and hyper-reflexia of the right arm were present. Complete occlusion of the left internal carotid artery was demonstrated in the arteriogram and no lumen could be established at operation. Left superior cervical sympathectomy was performed and long-term anticoagulant therapy was begun. After operation the patient at times experienced mild motor aphasia but he never had another acute episode of paresis or weakness. At this writing, fifteen months later, he is completely asymptomatic.

Five of the 15 patients treated have become completely asymptomatic, 6 were distinctly improved, 3 were unimproved and 1 died. This is an encouraging record. Individual case studies are more impressive than these figures. In patients in whom vascular reconstruction has been successful, transient attacks of cerebrovascular symptoms have promptly disappeared. Neurologic residuals have generally improved slowly but steadily from the time of operation. The speed and degree of recovery have exceeded normal expectations. An additional dividend is prevention of further cerebral damage which would be expected with uncorrected progressive stenosis and occlusion of the carotid vessels.

Further improvement in results is to be expected as increasing experience permits better selection of cases and avoidance of errors of management due to inexperience. Therapeutic potentialities are seriously limited if the internal carotid artery is completely occluded so that every effort must be made to establish the diagnosis when only partial occlusion is present.

Conclusions

1. Acute cerebrovascular ischemia is frequently due to involvement of major extracranial arteries.

2. With adequate precautions reconstructive surgical procedures are safe and highly rewarding clinically, chiefly for stenotic lesions or occlusions below the level of the internal carotid artery.

3. Superior cervical sympathectomy with or without anticoagulant therapy is useful in selected cases.

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Board of Health

The first ordinance for the establishment of a Board of Health in the city of New Orleans (as far as we have learned) was passed by the General Council in June 1841. . . . It was invested with ample powers to adopt and enforce such sanitary regulations as were thought conducive to the health of the city. They were required to make weekly publications of the interments during the sickly season, and monthly, the rest of the year.

The Board performed all of its functions well during the first year of its existence, 1841. If they were not able to adopt such measures as would preserve the health of the city, they at least gave us a pretty correct account of the "killed and wounded." The following year, 1842, it was observed to be somewhat remiss in its duties, but it did not fall quite into dissolution.

At the opening of the present season the Board of Health was found to be literally defunct, and the subject having been brought to the notice of the General Council, that body addressed a communication to the Medico Chirurgical Society, asking its opinion as to the propriety or necessity of having a Board of Health in the city of New Orleans, also any suggestions in relation to it, which the society might offer. The matter was laid before the society, referred to a committee, and a full report returned to the Council in reply. Whereupon, the General Council constituted the Medico Chirurgical Society a Board of Health for the City of New Orleans and invested it with all the powers of the former Board.
New Orleans M. & S. J., 1:97 (July to September) 1844.

The Place of Anticoagulants in the Treatment of Cerebrovascular Disease

• Whether or not anticoagulants prolong the life of the patient with cerebrovascular disease, the authors believe there is a striking decrease in frequency of transient episodes of insufficiency after anticoagulant therapy has been instituted.

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IN 1943, Allen and Barker [1] suggested use of anticoagulant drugs in the management of cerebrovascular disease. Millikan and associates [2-4] then began a long-term study of the effects of anticoagulants in a specific variety of intracranial vascular disease, namely, thrombosis or insufficiency of the basilar or internal carotid arterial system. The impetus for this study was the postmortem observation that the thrombus removed from a basilar artery had a laminated appearance, as if various portions were formed at different times. In addition, gross and microscopic examinations of the areas of infarction showed minimal evidence of bleeding. About the same time, Wright and associates [5] began using anticoagulants in an attempt to decrease the incidence of thromboembolic cerebrovascular accidents in patients with various forms of heart disease, with striking success.[6] Reports are scanty but, in general, it seems to be the consensus that frequency of attacks of cerebrovascular insufficiency is decreased and that life is prolonged by use of long-term anticoagulant therapy.

Indications and Contraindications

At present, we consider use of anticoagulants indicated in patients with: (1) insufficiency of either or both internal carotid arteries, (2) insufficiency of the basilar or vertebral artery, or both, and (3) multiple stroke syndrome. At the moment, we believe that such patients should be offered a choice of: surgical treatment, prolonged anticoagulant therapy or surgical treatment followed by long-term anticoagulant therapy. Selection of the type of treatment to be used in a specific case is difficult. Despite the enthusiasm of our surgical colleagues, many of these patients have diffuse cerebrovascular disease which will not necessarily be helped by attacking one or two isolated areas of obstruction.

It must also be remembered that there are distinct contraindications to use of anticoagulants, such as: (1) hemorrhagic diathesis, (2) the impossibility of excluding cerebral hemorrhage, (3) a history of ulceration in the gastrointestinal tract, (4) chronic hepatic disease, and (5) lack of adequate laboratory facilities.

At this time we believe that it is wise to select a course of therapy after consultation between the internist, neurologist, and surgeon, and after the relative merits of each type of therapy as it applies to the individual patient have been carefully weighed.

Results

Although we have treated only 13 patients with long-term anticoagulant therapy, it is our impression that in all of them the frequency of the episodes of insufficiency was decreased. In some, the transient episodes of neurologic deficit even disappeared altogether, as illustrated by the following patient.

Case No. 1. A white man, 47 years old, was seen at the Ochsner Clinic on August 1, 1956, because of transient episodes of paralysis and

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hypesthesia on the left side, lasting ten to fifteen minutes. The attacks were preceded by "tingling" of the left side of the face. On complete physical and neurologic examinations no abnormalities were detected. A diagnosis of intermittent insufficiency of the right internal carotid artery was made and oral anticoagulant therapy was begun. The patient has had no more episodes of major insufficiency, though for one year after the onset of his symptoms, if the prothrombin time fell below the therapeutic range, the patient would note transient episodes of "tingling" of the left side of the face. During the past year he has had no symptoms and continues to take the anticoagulants daily.

We have been impressed that in most of our patients other complications of atherosclerosis have developed, some even during adequate anticoagulant control. The following patient is an example:

Case No. 2. A white man, aged 53 years, was seen on July 30, 1956, because of transient episodes of diplopia and numbness of the right side of the face and right arm of two month's duration. Transient strabismus was noted during an attack. The patient had been under our care for several years because of severe hypertension and chronic renal disease.

It was decided to treat the patient with anticoagulants despite the hypertensive disease. After the prothrombin time had reached therapeutic range, the episodes of numbness and diplopia ceased.

The patient was asymptomatic for eighteen months except for occasional hematuria thought to be due to the anticoagulants, but use of the drug was continued as the hematuria was never severe. The patient died suddenly in December 1957, of coronary occlusion, despite adequate anticoagulant therapy.

There is obviously no way of knowing whether life has been prolonged by use of anticoagulants or by surgical treatment, since we never know what would have happened had another course of therapy been employed. It is unfortunate that there is no objective means of determining to what extent any of the suggested therapeutic measures actually improves cerebral circulation. Theoretically, one would expect the role of anticoagulant therapy to be to prevent or at least delay formation of a clot that might convert a partially stenosed vessel into an occluded one. Also, propagation of a thrombus, if present, might be inhibited. It is this which should justify the therapeutic use of anticoagulants in the treatment of cerebrovascular insufficiency. Since neither the degree of stenosis nor the hemodynamics involved in the diversion of blood away from the cerebrovascular tree during episodes of insufficiency is altered, we have no explanation for the rather striking decrease in frequency of the transient episodes of insufficiency after anticoagulant therapy has been instituted.

Prothrombin Time

When we decide to treat a patient with anticoagulants, we prefer to prescribe oral medication and follow the effects of therapy by frequent determinations of the prothrombin time. We strongly believe that the prothrombin time must always be kept within the therapeutic range, and we expect most of our patients at one time or another to bleed (Case No. 2). Unless such hemorrhage is serious, we are not alarmed and continue use of anticoagulant therapy. We do not agree with the all too prevalent point of view that administration of anticoagulants in a dosage below the therapeutic range is safe and may even be beneficial and is therefore acceptable treatment for patients with cerebrovascular insufficiency.

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Acute Focal Cerebral Ischemia

• The authors outline theories of the etiology of focal cerebrovascular insufficiency and a further mode of treatment and summarize potential therapeutic programs.

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CONSIDERABLE controversy continues to exist regarding the etiology and treatment of both minor and major bouts of focal cerebral ischemia. For example, all agree that the victim of a major stroke should receive general supportive measures as indicated, but some [1] object to the more definitive treatment of the focal ischemia by sympathetic blocks,[2] chiefly on the theory that such treatment would not alter the cerebral circulation. However, reports in the medical literature of favorable results of such treatment greatly outnumber reports of unfavorable results.

Undoubtedly, everyone would agree that no definite rule can be followed in the care of patients who have sustained strokes except that appropriate treatment should be selected after evaluation of each patient from many aspects, such as their chronologic and apparent physiologic ages, general health and cardiovascular status, as well as the neurologic deficit. The essential problem, of course, is to improve the blood supply to the involved part of the brain by restoring the direct circulation, or by increasing the collateral circulation by dilating the anastomotic connections between the major cerebral arteries.

Sympathetic Interruption

In evaluation of treatment of focal cerebral ischemia by interruption of sympathetic impulses to the head it is of some interest to consider certain experimental and clinical data relative to the cerebral blood flow. Some experimentalists have presented data interpreted as demonstrating that the cerebral blood flow cannot be significantly increased by interruption of sympathetic impulses to the head. They have stressed the pronounced stability of the intracranial pressure and the apparent dependence of the cerebral blood flow upon extracranial factors, such as cardiac function and the systemic blood pressure. It is well established that a great potential for development of adequate collateral circulation to any part of the cerebrum exists anatomically, owing to the presence of the circle of Willis, the pial plexus, connections between the intrinsic cerebral arterioles and connections between the branches of the external carotid artery and the ophthalmic artery. It is known now, primarily because of the use of angiography, that many patients who have had minor or major bouts of acute focal cerebral ischemia have partial or complete occlusion of the distal portion of the common carotid artery or of the proximal portion of the internal carotid artery.

As would be expected, in those in whom some interference of carotid blood flow is demonstrated, the area of greatest neurologic deficit is referable to the cortex farthest removed from the opposite carotid blood flow. That is, the most prominent neurologic deficit usually consists of numbness and tingling of the side of the face and upper extremity opposite the carotid occlusion and weakness of the upper extremity. The corresponding lower extremity is affected usually in major strokes and often in minor strokes, but to a lesser degree. This suggests that the critical final precipitating factor is one of hemodynamics in that the most

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severe deficits are referable to that part of the arterial tree farthest from the source of arterial blood pressure. This explanation alone does not seem compatible with the fact that many patients with complete occlusion of one internal carotid artery demonstrate only transient intolerance periodically to the lesion. Furthermore, a fall in the systemic blood pressure has not been correlated consistently with such transient bouts of focal cerebral ischemia. On the contrary, these attacks often are associated with periods of emotional stress when it would be expected that the blood pressure might be higher than usual.

Zak and Elias [3] suggested that bouts of cerebral ischemia might be produced by the formation of emboli from atheromatous lesions of the large arteries supplying the brain. Fisher and Adams [4] theorized that such emboli might start a series of reactions producing hemorrhagic infarction of the cerebrum. The absence of angiographic or postmortem evidence of such emboli in the majority of these patients makes one doubt that they are a common cause of these attacks. It seems highly improbable that these explanations could apply in any of the cases in which repeated transient attacks of focal cerebral ischemia occur in the presence of complete obstruction of the internal carotid artery.

Many consider bouts of spasm of the small arterioles of the brain commonly to be the final precipitating factor for attacks of acute focal cerebral ischemia. Paterson [5] suggested that spasm of an arterial tree might be produced by rupture of small nutrient mural vessels arising from the lumen of the parent artery owing to transmission of undue pressure along the relatively thin-walled mural vessel. It seems unlikely that an adequate explanation for the cause of such focal vasospasm has been offered, but the mechanism may be similar to that observed in the digits with certain vasospastic diseases, or, in the gastric mucosa.

Besides the absence of a completely satisfactory explanation of the exact mechanism of the final reaction that most commonly precipitates a bout of focal cerebral ischemia, it has been difficult to understand why one patient will tolerate complete occlusion of an internal carotid artery without demonstrating any evidence of cerebral ischemia; whereas severe hemiplegia and hemihypesthesia will develop followed by obvious cerebral softening in another patient whose cardiovascular status is apparently comparable. It seems probable that one may be born with several types of predilection for later development of strokes. For example, formation of atheromatous lesions seems to be, to a considerable extent, a matter of genetics. The same may be true to some degree for the phenomenon of undue vasospasm. Congenital anomalies in the anatomy of the circle of Willis are common [6] and possibly constitute an important cause of the variations in tolerance to partial or complete occlusion of an internal carotid artery. The most common anomaly that seems significant in this respect is trifurcation of the internal carotid artery. With the normal anatomic pattern of bifurcation of the internal carotid artery, the cerebral hemisphere is much less dependent upon uninterrupted flow through the carotid system than with trifurcation of the artery. With trifurcation, development of satisfactory collateral blood flow from the vertebral system through the anastomotic relations between the anterior and middle cerebral arteries with the posterior cerebral artery is considerably less likely to occur.

Many have reported clinical improvement in patients with focal cerebral ischemia of acute onset after cervical sympathetic block since Leriche and Fontaine's [7] successful report of use of this procedure twenty-two years ago.

The case of a 37-year-old oil field worker, previously reported,[8] demonstrates particularly well the potential value of sympathetic block in the treatment of acute focal cerebral ischemia. This patient was treated for a large aneurysm of the left internal carotid artery by a trapping procedure consisting of occlusion of the in-

ternal carotid artery in the neck followed by application of a clip on the artery intracranially distal to the aneurysm. A cervical sympathetic block was performed shortly after the onset of the stroke. In spite of the fact that any undue constriction of the arterial tree secondary to placing of the clip on the artery should have subsided before this time and in spite, also, of the unavailability of the collateral flow from the external carotid via the ophthalmic artery, immediate improvement occurred. Furthermore, additional improvement followed each of several subsequent blocks. This satisfactory response to sympathetic blocks must have been due largely, if not entirely, to improvement of the circulation to the ischemic portion of the brain in the distribution of the middle cerebral artery by increase of the collateral blood flow through the anastomotic relations between the major cerebral arteries in the pial plexus and within the substance of the cerebral hemisphere. The rationale of this phase of treatment for acute focal cerebral ischemia has been discussed in previous communications.[8-10]

Potential Therapeutic Programs

At present, depending upon the beliefs of the attending physicians, attacks of focal cerebral ischemia (minor strokes) are treated by one or several of the following general therapeutic measures: (1) general supportive measures, (2) interruption of sympathetic impulses, (3) removal of atheromatous plaques or other obstructive lesions, (4) administration of anticoagulant drugs, and (5) administration of vasodilator medication, such as nitroglycerine or nicotinic acid. Acute focal cerebral ischemia with incipient cerebral softening (major stroke) is usually treated in the same way except that anticoagulant drugs apparently are given relatively uncommonly.

The critical problem in major or minor strokes is to improve the blood supply to the ischemic area of the brain as quickly as possible. The general intracranial blood flow may be improved by placing the patient in the supine position with the head lower than the feet, by administration of hypertensive drugs or by transfusion of blood if the peripheral blood picture indicates some type of anemia. More direct therapy consists of improving the circulation to the ischemic segment by (1) improving the direct circulation by removal of an atheromatous plaque or other obstructive lesion or (2) improving the collateral circulation by sympathetic blocks or sympathectomy.

It is urged that a cervical sympathetic block be performed as soon as the diagnosis of a major stroke has been made. Then, if a satisfactory Horner's syndrome is produced, one undoubtedly has improved the blood supply to the ischemic portion of the brain. Carotid angiography should be performed as soon as possible unless there is some contraindication to the procedure. If partial or complete occlusion of the carotid system is demonstrated, the appropriate vascular procedure should be performed without delay. If complete block of the carotid system has been demonstrated by angiography and at operation no back-flow of blood is obtained, superior cervical ganglionectomy should be performed. A series of cervical sympathetic blocks may be performed if both vascular surgery and sympathectomy seem contraindicated.

Obviously, the appropriate general therapeutic procedures, as well as the more definitive measures, should be instituted without delay. Delaying treatment even a few minutes may result in irreparable damage to the brain with consequent permanent neurologic deficit.

Summary

Severe neurologic deficits undoubtedly can be prevented in many patients who have suffered an attack of acute focal cerebral ischemia if definitive treatment is instituted promptly. Angiography is important for proper evaluation if the patient is considered a candidate for vascular surgery, in order to improve the direct circulation to the ischemic area. Apparently, a clinically significant degree of obstruction of blood flow by a surgically

amenable lesion can be expected to be demonstrated in a relatively large percentage of such patients. A significant increase in the blood supply to the ischemic part of the brain can be obtained most quickly via collateral channels by cervical sympathetic block if occlusion of the carotid system is complete. If the blood flow through the carotid vessels is partially obstructed, sympathetic block may increase the direct blood flow to the tissues by relaxing concomitant vasospasm. Sympathetic blocks or superior cervical ganglionectomy may constitute the definitive treatment if a vascular surgical lesion is not demonstrated or if complete block of the carotid system is present distal to the primary obstruction, as indicated by absence of back flow of blood from the internal carotid artery at operation. If vascular surgical procedures and sympathectomy seem contraindicated, anticoagulant and vasodilator medication may prove beneficial.

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Cause of Yellow Fever

If we study attentively the physical conditions which seem to influence the development of Yellow Fever in New Orleans, we shall find that this disease makes its appearance towards the close of summer or in the beginning of autumn, when the days are excessively hot, and the nights quite cool. Being once produced the disease rages for an uncertain period, and does not disappear until after a killing white frost. Let us endeavor to explain this fact. During the months of May, June, and July the turbid and stagnant waters which surround the City, being heated by a burning sun, evaporate in consequence of the temperature of the air . . . The stratum of air becoming saturated, soon ascends . . . hence it follows that at a certain height, the air becomes completely saturated with aqueous vapour.

Should this temperature be diminished in any manner, the watery vapour must be condensed in the same proportion, and descend to the surface of the earth. Having premised this, is it not reasonable to admit that those substances, those miasms, formed by the decomposition of certain bodies . . . will descend again when the temperature is lowered, in the form of fine watery particles or mist and be diffused everywhere? These deleterious exhalations must then exercise an unfavorable influence on human health.

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Financial Aid For Low Income Families With Children Having Special Medical Needs

• The work of the State Department of Public Welfare in providing special medical services to dependent children of employable fathers, when these needs cannot be taken care of by low family incomes, is outlined by the authors.

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General Information

CERTAIN families are able to provide for their food, clothing, shelter and ordinary medical care needs; other families are not able to provide completely for any of these. In both instances the family is eligible for state help if a severe expensive illness or handicap of a child ensues and the family, because of insufficent family income, or lack of community resources, is unable to provide the medical care the child needs.

When the medical care needs exceed the ability of the family and community to take care of them, the State Department of Public Welfare will provide financial assistance. The program which meets this need is known as the "General Assistance Ill or Handicapped Child Program."

History

Americans traditionally have been interested in the welfare of dependent children. The methods of providing for these children have varied considerably. In most systems used the goal was to provide food, clothing, and shelter. Medical needs existed, but it was not until the passage of the Social Security Act of 1935 that provision really began to be made for the medical needs of children. Federal grants-in-aid to states under the Social Security Law and its amendments are providing for more dependent children through state welfare services and when state welfare programs for children are properly operated they offer the children a more natural, normal type of environment in which to develop.

The Child Welfare Program in Louisiana provides services to dependent and neglected children most of whom are in the temporary custody of the Department of Public Welfare. Louisiana's Aid to Dependent Children Program provides for dependent children deprived of parental support because of the death, continued absence or incapacity of one of the parents.

There are, in Louisiana, today a large number of children of employable fathers who live in the home but who are unable to provide for the needs of their children. While employable, these fathers, because of limited education, limited work experience, lack of marketable skills, and limited job opportunities commensurate with their abilities are unable to provide their families with even the low standard of living established for those families who are eligible for public assistance.

Correction of the basic factors causing this unwholesome situation is needed. This is a long-time job, however, since it involves education of a generation of people and provision for the current generation until, because of attrition, this generation no longer exists and requires support. The financial assistance and services rendered should help build, not destroy, character. To accomplish this, society should not support, in full, these families, but should expect the employable father to earn to the extent of his capacity while society supplements his earned income to the extent of assuring that his family's basic

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needs are met once society has assured the worker of a just wage. Many thousands of families exist in unbelievable poverty, misery, starvation, filth, inadequate housing, ill health and community dependency. These conditions, in turn, are breeding like conditions and future generations of dependent people.

The people of Louisiana, through the State Department of Public Welfare's General Assistance Ill or Handicapped Child Program, are attempting to provide for the medical needs of the seriously disabled children of these families. The medical needs of many eligible children are unmet because the professional people who care for these children are unfamiliar with the possibilities of this Program.

This Program was established in 1954. It resulted from the appeal, in 1953, of a working father for help in meeting the cost of the expensive diet of his child ill with celiac disease. The Department was without authority to provide the help requested. The community came temporarily to the aid of the family. In the meantime, the local legislator became interested and prepared and introduced to the Legislature a bill providing that the Department of Public Welfare establish a program to meet the immediate needs of indigent persons. This bill passed both Houses of the Legislature but was vetoed by the Governor because it failed to establish adequate controls. An agreement, however, was entered into to request the State Welfare Board, through its rule-making authority, to establish programs to meet the immediate needs of indigent persons.

In 1954, the Department of Public Welfare implemented State Welfare Board policy by establishing, as a special part of its General Assistance Program, a procedure whereby the special medical needs of children can be met under certain circumstances. This GA Ill or Handicapped Child Program provides only for the special needs of children when there is no other family, governmental or voluntary resource which can provide the care or help needed.

Method of Operation

An application for assistance may be made to the Parish Department of Public Welfare by the person responsible for the care of any child with a serious, continuing illness or handicap, provided treatment requires a special diet or special medical care and these cannot be obtained in any other way. The Parish Department of Public Welfare investigates, collects all available medical and socio-economic information and prepares a family budget. The standards for each item of need in the budget are the same as used by the Department of Public Welfare for its General Assistance Program. If the family budget shows a deficit, the Department of Public Welfare may allow a money payment to cover the cost of the needed physician's services, medications, appliances, prosthesis, special diet and transportation to a treatment center.

If it is determined that the family qualifies for the General Assistance Program, except that the father is employable and living in the home, the socio-economic and medical data is forwarded to the State office in Baton Rouge where it is reviewed by the Bureau of Medical Services and the Bureau of Public Assistance. Medical Services determines if a serious handicap or illness which requires a special diet or special medical care exists. If the Bureau of Medical Services accepts the child as meeting the medical criteria established for participation in this program, the Bureau of Public Assistance reviews the data to confirm that all of the nonmedical conditions of eligibility are met. When accepted for assistance the family is so advised through the parish Welfare office. Only the child's special medical needs are provided for by public assistance. Each case is reviewed periodically by the Bureau of Medical Services. The handicap determines the periodicity, but, in no instance, does the interval between medical reviews exceed one year. The parish office, at least once a year, reviews the case to be certain that the nonmedical conditions of eligibility are being met.

1956 Study of GA Ill or Handicapped Program Participants

In January 1956, in preparation for the "First Louisiana Conference on Handicapped Children," the Department of Public Welfare made a study of the children currently being assisted through the GA Ill or Handicapped Child Program. The study revealed that 60 children were being currently assisted. However, the number of children being helped was found to vary from month to month. Of the 60 children being helped, the records of 50 representing 46 families were reviewed by the Director of the Bureau of Public Assistance. Medications and/or professional fees were provided for 41 children, special diets for 17, and transportation to and from a medical facility for 22. These children were referred to the Department of Public Welfare for help by private physicians, state hospitals or institutions, Crippled Children's Services, and other agencies. The diagnoses of the 50 children studied are interesting. Eleven were handicapped with cardiac disease; 8 had had rheumatic fever; and 3 had congenital heart disease; 5 had epilepsy; 6 tuberculosis; 5 orthopedic defects; and 4 diabetes. Other diagnoses included cerebral palsy, sickle cell anemia, hemophilia, malnutrition, worms, nutritional anemia, nephritis, nephrosis, and cirrhosis of the liver. Some of the children had incurable conditions but others were obviously being benefitted because of the help they were receiving through the GA Ill or Handicapped Child Program.

The other children in the family also benefitted from the help given the ill or handicapped child. Brothers and sisters of a child with a serious continuing illness frequently are deprived to provide for the needs of the sick child. This program assists the parents so that they may provide better for the needs of all their children.

As one reviews the records of these families he is impressed with the low average monthly income and the large number of children of these families. About 20 of the families had 5 or more children. For these families the average monthly income ranged from $60 for a farm family of 9 to $189 for an urban family of 8 persons, 4 of whom had tuberculosis.

1957 Study of GA Ill or Handicapped Program Participants

In September 1957, a study of the medical and social characteristics of the entire GA Ill or Handicapped Child caseload was made. The source of information for this study was the case records on file in the State office. Representing 128 families, 144 children were being helped at the time of the study. One hundred and nineteen (92.9 per cent) of the families had only one ill or handicapped child receiving help. Nearly all of the families had additional children; the number of these ranged from 1 to 11 with an average of 4 for a family.

Approximately two-thirds of the ill or handicapped children were Negro. This is a marked disproportion to the number of Negro children in the same age group (less than 16 years) of the general population of Louisiana.

More than two-thirds of the children studied lived in small towns and villages or on farms. This residential pattern is the same as that for persons of similar ages in the total population.

The average age of the children was slightly less than 8 years. Those less than 6 years of age constituted 43.1 per cent of the study group. Only 31.2 per cent were 11 years of age or older.

As in 1956, a diversity of conditions accounted for the need for help. Diseases of the central nervous system accounted for the largest number with 20 children in this group. Congenital malformation of 19 and tuberculosis in 14 children were the next most common conditions causing the families to request help of the Department of Public Welfare. Four dianostic categories—birth injuries, allergies, diseases of the blood and diseases of the circulatory system—affected 12 children each. Diseases of the genito-urinary system accounted for the disability of 10 children. Mental and personality disorders, diseases of the bones and organs of

movement, poliomyelitis and other disabling conditions accounted for the help needed by the remaining children.

Only a relatively small proportion of children were bedbound (15.2 per cent) or confined to wheelchairs (3.4 per cent). Nearly 56 per cent of the children were fully ambulatory and an additional 13.8 per cent were partially ambulatory. About 20 per cent of the children were housebound.

Twenty-nine per cent (42 children) received treatment from two or more sources —the remaining 71 per cent (102 children) received treatment from only one source. The frequency of treatment ranged from one or more times weekly to about once every two months. About one-third of the children received treatment bi-monthly; only 16.2 per cent received treatment every two weeks or oftener.

At the time of the study, half of the children had been receiving assistance for twelve months or less; 31.9 per cent had received help for thirteen months to two years. Only one child had received help for longer than three years.

Nearly all of the fathers in the 128 families were employed. About one-half worked as farmers or farm laborers. Slightly more than 12 per cent were employed as unskilled laborers or service workers while 15 per cent were semi-skilled workers or craftsmen. For 15.6 per cent the occupation of the father is not known. Although shown in the parish office records it was not shown on the state office records from which this study was done.

Total income of the families ranged from none at all to $243 a month. The average income was $90 per average family of 6 persons. Total family need according to Department of Public Welfare standards averaged about $180 a month. The average family in this study, therefore, failed by about $90 a month to attain even the standard of living established by the Department of Public Welfare for those families in which the father is incapacitated or the mother is the sole support of her children. The public assistance grant to these families averaged only $27.63 a month in spite of the fact that these families failed to meet Welfare standards by $90 a month. This conforms to the intent of the program which is to provide only for the special medical needs of the child. One-third of the grants were approved for twelve months or over and about one-half for six to twelve months. The rest were approved for less than six months or for an indefinite period.

The largest single item for which a grant was given was for transportation to the treating facility. In 17 cases transportation was the only item provided. Medicine was provided for 116, special diets in 75, transportation in 72, physicians' fees in 46 and an appliance in one instance. Although physicians' fees were provided in 46 cases, 61 (42.3 per cent) of the children were being treated by private physicians. Thirty-three children (22.9 per cent) were being treated by the Crippled Children's Services of the State Department of Health.

Less than one-third of the families studied had received public assistance prior to certification in the GA Ill or Handicapped Child Program. Among these families who had previously received aid, more than 7 out of 10 had been certified for participation in the State's Aid to Dependent Children Program.

Current Status of Program

In September 1958, only 70 cases, of the 144 who received help in September 1957, were still receiving help through the GA Ill or Handicapped Child Program. The total caseload in this program, in September 1958, was 129 children of 110 families as compared to 144 children of 128 families a year ago. The average payment in September 1958, was $25.04 compared to $27.63 the previous year.

Case Illustrations

It is interesting that the child whose illness and need precipitated the establishment of this program is still receiving public assistance four years later.

Case No. 1.—This 6 year old child receives medical supervision from the pediatric service

of the New Orleans Charity Hospital. The child is now eating one regular meal a day but is still in need of a diet high in lean meat, protein milk, bananas, fresh orange juice, cottage cheese, apple sauce, and vitamin supplements. The family physician confirmed that the child is following a diet which by Departmental food standards costs $51.22 a month. In this child's family there are 8 persons. The family's budgetary deficit based on Department of Public Welfare standards for basic needs is approximately $100 a month if the child's medical needs are included in the budget. The goal in this case is restoration of this child to relatively normal health. She is improving and the outlook is hopeful.

Case No. 2.—Female, born February 1944. Mental defective with average of 2 convulsions a day without treatment. In addition, child has a speech impediment and the left arm and hand are small and she cannot close her hand freely. Apparently normal until 3 months of age when she had high fever and convulsions. Child's mother has been a patient in a mental institution since child was age 3 years. This is only child of that marriage. Father has established a stable nonlegal union with another woman. Has two stepchildren and three children from this union. Father is a share crop farmer. Family of eight live on crop income of $19.37 and wages of $7.50 per month. Family needs, based on welfare standards, amount to $198.50 a month. Income of $26.87 reduces family budgetary deficit to $171.63. As father is employable the Department of Public Welfare can meet only the medical needs of the child. These amount to $52.00 a month and include a high caloric-high vitamin diet, transportation for medical care, medications and physician's services. Receives care from private physician.

Case No. 3.—Male, born April, 1955. Diagnosis: Hypogammaglobulinemia, lower lobectomy left lung, bronchiectasis, multiple vitamin deficiency and anemia. The family are independent share crop farmers and day laborers. Attempted to provide for child's needs for two years before requesting assistance. Father, mother and 11 dependent children, ages 2 to 16 years in home. Father's earning amount to $83.04 a month. Family needs, based on welfare standards, amount to $305.50 a month. Income of $83.04 a month reduces family budgetary deficit to $222.46 a month. The medications, including gamma globulin, are being provided by the Lafayette Charity Hospital. Medical supervision is being provided by the Lafayette and New Orleans Charity Hospitals. As the father is employable, the Department can meet only the medical needs of the child. This amounts to $8.00 for transportation for mother and child to and from the Lafayette Charity Hospital. The last hospital report from the New Orleans Charity Hospital indicated that the bronchiectasis was greatly improved after the lobectomy, that the child could return to a normal diet and should receive a maintenance dose of gamma globulin once a month and remain under semi-monthly medical supervision.

Case No. 4.—Female, born July, 1954. Diagnosis: Nephrosis and primary tuberculosis. Child is middle child of five. Ages range from 2 to 21 years. This family of seven live in a two room home in an isolated rural area. Oldest boy is step-son of father. Father and mother are living in an unstable marital union. Both have children by previous marriages. Wife's son lives in household and helps support this family. He works as a laborer on a dairy. Earns $50. a month and shelter. Allows family to live with him. Father is a common laborer. Earns $30. a week. Has to pay $30 a month for support of children by previous marriage. Father provides groceries but no cash income to this family. Family income is $84 a month. Family needs, based on welfare standards, are $106 a month. As father is employable, the Department of Public Welfare can meet only the medical needs of the child. These amount to $20 a month at this time for a high caloric-high vitamin diet. Nephrosis and tuberculosis are now inactive. At one time this child's needs amounted to $32 a month. This included a high vitamin-high caloric diet, transportation to New Orleans Charity Hsopital for mother and child at monthly intervals and medications. This child is improved.

Case No. 5.—Five children, ages 2 to 12 years, receive assistance under this grant, 4 females, 1 male. Diagnosis: Tuberculosis. Family of 9 reside in an urban area. The mother has had tuberculosis and a pneumonectomy. She was hospitalized in a state tuberculosis hospital for twenty months, in 1955 and 1956. The mother and father were separated prior to and during her hospitalization, but after her discharge from the hospital, they were reconciled. During parents' separation Aid to Dependent Children assistance was given to mother for a while but when she refused to exhaust legal remedies to force husband to support the children, the grant was discontinued. Children went to live with relatives in and out of Louisiana and one child was placed in Foster Care. Children were returned to parents after reconciliation. The mother is a dependent, emotionally immature person. The father has been inconsistent in providing for the family throughout his life. The relationship between husband and wife is very tenuous. At present, the family lives in a housing project. The father earns an average of $200 a month. The family needs, based on welfare standards, are $296 a month. Income of $200 a month reduces the family budgetary deficit to $96 a month. As the father is employable, only the medical needs of the children

can be met. Medical supervision is provided by the New Orleans Charity Hospital. Only one child needs antituberculosis drugs at this time. Each of the children needs a high protein, high vitamin, high caloric diet and a multiple vitamin supplement. The welfare grant of $95 a month provides for the dietary needs of these children. Medications are provided by the hospital. Transportation is provided by the family. In addition to financial assistance, the Department of Public Welfare has done case work, through weekly contacts with family, in an effort to strengthen the relationship between the parents and to offer other services which might benefit the whole family.

The five cases presented above are typical of those which are presented to the Department of Public Welfare for assistance. The medical problem is usually just one of the multiple social problems facing low income families where the father because of lack of education, marketable skills, job opportunities and a fair return for his labor is unable to earn enough to meet even the basic needs of his family. Fortunately, the Department of Public Welfare can provide partial financial assistance to meet the continuing medical needs of any of his children should they have a serious continuing illness.

Agencies Providing Assistance To Children

Physicians frequently serve children who have needs beyond the ability of the physician to provide. It is very discouraging when this is so. The physician gives willingly of his time and knowledge, but the child needs medications, appliances, prostheses, bandages, medical supplies, eyeglasses, attendant care, physiotherapy and many other items and ancillary services which the physician and the family cannot provide. Unfortunately, these are often essential to the proper medical care of the child.

Today's physician has many helpers, however. There are agencies and organizations dedicated to the help of patients with all of the major and many of the minor chronic disabling disorders. Frequently where no specific organization to help exists, a civic or church group can be found which will accept temporarily the responsibility of providing for the child's unmet needs.

In Louisiana, the State Departments of Welfare, Health, Hospitals, Institutions and Education all offer certain services to ill or handicapped children. In addition, the voluntary social agencies and many of the civic and church groups also have programs designed to aid needy children. There is hardly a child whose needs cannot be provided for in Louisiana if one knows where to go for help and the family is willing to make the sacrifices necessary to help the child.

In each parish the Department of Public Welfare and the Health Unit usually maintain a file of the community and state resources. Information concerning these is available to those requesting such information.

Conclusion

Children, especially ill or handicapped children, are dependent on those around them to provide for many of their needs. The family of the sick child expect their family physician to refer them to the agencies and organizations which may help them. The greater his knowledge of resources, therefore, the more will he be able to help the children and their families who depend on him for medical care and supervision.

As one aid to children and to physicians, the Department of Public Welfare has established a program which provides financial aid to children of low income families when these children have special dietary or medical needs which the family cannot meet.

The child is expected to use a free resource whenever possible, but if the child is too ill or handicapped to travel to the free medical facility or the cost of transportation is greater than buying the needed medical service in the home community, then the family is expected to use the local physician of their choice.

This program is financed from revenues of the State sales tax. The money grant is to the family which, in turn, makes its own arrangements with the physician of its choice and pays him directly for his services.

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Editorial

Another Forand Bill–Creeping Socialism

Another version of the Forand bill was introduced in the House of Representatives on February 18. It was given the number H.R. 4700. It is similar in many respects to the bill by the same author in the 85th Congress when it was given the number H.R. 9467.* It is generally understood that it is introduced with vigorous AFL-CIO backing and is third in labor's list of legislative objectives for this Congress. The new bill, if enacted into law, would be an important step in creeping socialism, and could easily lead through successive similar increments of socialistic legislation to the ultimate achievement of the full program of compulsory federal sickness insurance and federal bureaucratic medicine.

The bill proposes to levy a payroll tax, beginning in 1960, of 3¼ per cent from each employer and employee, on the present base of $4800, with an increase to 4¾ per cent in 1969. With this two billion dollars or more, it would give one hundred and twenty days' free hospital and nursing home care, but with a maximum of sixty days' hospitalization per year, to approximately thirteen million eligible Social Security claimants, principally persons above age 65. In fifteen years this number of persons is expected to be twenty-two million. Payments will be made directly to hospitals, physicians, and nursing homes.

Under this arrangement of Social Security taxes a self employed person could be paying as much as $343 a year in 1969. These figures represent ¼ of a per cent above the previously indicated tax rate.

Governments operating other similar socialistic health programs have found that their cost was several times larger than the original estimates. It is probable that this payroll tax would have to be increased to cover the additional cost that would be involved. It is to be expected that there will be an increase in utilization of hospitals by the Social Security claimants, and this would limit the num-

ber of beds available for the acutely ill of all ages in the community.

In Saskatchewan, Canada, for example, the average person over 65 occupies a hospital bed 7.2 days a year. In the United States, the average person over 65 occupies a hospital bed 2.5 days a year.

The bill is a cleverly designed instrument proposing a political solution to a health problem. It is a health care bill developed by nonmedical people. It would provide the sixty days' free hospitalization to the thirteen million eligibles, the majority of whom would vote but would not have to pay the increased tax. It would create a needless and dangerous crowding of hospital space.

The program would be administered by the Secretary of Health, Education, and Welfare, who would set and enforce standards of health care under bureaucratic control. Such a law would do lasting harm to voluntary health insurance.

As bad as all these effects would be they are small in comparison to the danger of State Medicine. How near the danger is can be understood by consideration of the following enactments: In each election year since 1950, so called liberalizations of the Social Security law, which means increase in scope, have been enacted. Three years ago, disability payments were established for those eligible for Social Security past 50. Already there is a clamor for the age barrier to be removed. In addition to this, federal medical services provided for three and a half million uninsurable on Welfare programs. The Veterans Administration, during 1957, gave hospital care to a half million veterans out of twenty-two and a half million who might apply. Of those who were hospitalized, 85 per cent had nonservice connected conditions. Other federal services, such as the Public Health Service and Medicare, add additional thousands to those whose medical needs are met by tax money. State and municipal facilities increase the total.

Should the Forand bill be enacted into law it is a reasonable estimate that some forty-five to fifty million of our population will be receiving medical care provided by the taxpayer. Successive socialistic steps would be additional laws to include the veterans' families and remove the age limit on Social Security inclusions. Thus, by a process of gradual enactment, state bureaucratic and perfunctory medicine—all one and the same—would become established.

To meet the needs of this threatening situation, private insurance has set itself to provide hospitalization policies for those above 65. The A.M.A. has requested state organizations to promote Blue Shield coverage in the same group and at the same time suggested a proportionate reduction in fees for those so covered.

Private health insurance coverage among senior citizens receiving Social Security OASI benefits has jumped almost 100 per cent in six years. A recent government survey shows 43 per cent of this group have private health insurance, compared with 22.7 per cent six years earlier.

Accurate figures as to what further need there is in this field are not available. Interest in such coverage has become widespread. A few years ago study revealed that most hospital policies sold to individuals terminated at age 65. It is reported that at present at least ten large insurance companies offer policies which are guaranteed renewable for a lifetime. The Health Insurance Institute has estimated that 60 per cent of those past 65 who wanted insurance coverage would have it by 1960, and 75 per cent by 1965.

The labor leaders claim that these measures to provide medical care for those past 65 are insufficient and will continue to be "too little and too late." With the existence apparently of a majority in Congress previously committed to follow the dictates of labor, defeat of this bill and similar types of legislation will be difficult. Against its enactment are the American Medical Association, many private health insurance plans, groups representing many hospitals, nursing homes and dentists, and many stable business inter-

ests, who deplore the increase in "give away" legislation and the subtle trend towards socialism which they represent.

It is in the interests of each physician to get in contact with his representative, and also, to have his patients do the same. Consistent and widespread opposition should be sufficient to stop this additional effort to enact socialistic legislation.

Editorial: Dangers of the Forand "AFL-CIO" Bill H.R. 9467, J. La. State M. Soc. 110:28 (Jan.) 1958.

ORGANIZATION SECTION

The Executive Committee dedicates this section to the members of the Louisiana State Medical Society, feeling that a proper discussion of salient issues will contribute to the understanding and fortification of our Society.

An informed profession should be a wise one.

DR. LAWSON HONORED

Dr. Edwin Hugh Lawson, one of our prominent doctors, was signally honored by the members of the Federation of State Medical Boards of the United States, at their Annual Meeting in Chicago, on February 7, by electing and installing him as their President for 1959, succeeding Dr. Wesley D. Richards of Pittsburgh, Pennsylvania.

Dr. Lawson is also serving as President-elect of the Southern Medical Association, having been elected to this high office by the members of the Southern Medical Association at their Annual Meeting in New Orleans last November.

These honors are well deserved and Dr. Lawson will acquit himself, as in the past, in a manner wholly meriting the confidence placed in him. We wish for you, Dr. Lawson, all possible success in the administration of these two offices of distinction.

PRINCIPLES OF PRACTICE
of the
American Congress of Physical Medicine and Rehabilitation

I affirm my devotion to the service of humanity and will do everything I can to merit the confidence and sacred trust of my patients. My responsibility to my patient is my first obligation.

I affirm my adherence to the "Principles of Medical Ethics" of the American Medical Association and my determination to practice the profession of medicine and the specialty of physical medicine and rehabilitation in accord with them.

I will stand ever ready to make available my skills, services, and knowledge to my colleagues and will cooperate with them so that advances in medical knowledge particularly in physical medicine and rehabilitation will be available to them and their patients.

I affirm my obligation to do my utmost to protect the profession, the specialty of physical medicine and rehabilitation, and the public against physicians deficient in moral character or professional competence.

I affirm that upon undertaking the care of a patient I shall not neglect him or discontinue my care without giving adequate notice.

I am free to choose whom I shall serve, but I will not solicit.

I will not dispose of my services under terms or conditions which

hinder or impair the free and complete exercise of my independent medical judgment and skill;

cause deterioration of the quality of medical care, and

permit the sale of my services by any hospital, corporation, rehabilitation center, or lay body, by whatever name called or however organized, not licensed to practice medicine.

I will not solicit nor accept a position which is occupied by another physiatrist without first consulting with that physiatrist.

I will not divide fees for professional medical services performed by me directly or indirectly with any other person.

I will not participate, directly or indirectly, in any program contrary to law or in any program for the rendering of professional medical services which is not under the direction and supervision of a licensed doctor of medicine.

We think these principles, if lived up to, would be a fitting creed for most any medical

organization to adopt, and we congratulate the Congress on the acceptance of said principles.

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IMPORTANT WARNING

The Louisiana State Medical Society has asked its members to warn parents against allowing infants to play with thin plastic bags such as those used by dry cleaning establishments to wrap cleaned garments. Quite a few small children have suffocated in recent weeks while playing with the lightweight plastic material.

An electrostatic charge works up in the plastic, causing it at times to literally "grab the face of the youngster through electrical attraction."

The American Medical Association reported that four infants suffocated in recent weeks in Phoenix, Arizona after their parents had given them the plastic bags as play-things.

Pediatricians and general practitioners should be particularly alert in advising parents against allowing young children to play with this plastic material.

The plastic bags are a relatively new innovation in the dry cleaning industry. They are used by some cleaners in place of the familiar paper protective bags which keep clothes from getting soiled while they are being transported from cleaning plants back to customers' homes.

MEDICAL NEWS SECTION

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
Ascension	Third Tuesday of every month	
Calcasieu	Fourth Tuesday every other month	Lake Charles
East Baton Rouge	Second Tuesday of every month	Baton Rouge
Morehouse	Third Tuesday of every month	Bastrop
Natchitoches	Second Tuesday of every month	
Orleans	Second Monday of every month	New Orleans
Ouachita	First Thursday of every month	Monroe
Rapides	First Monday of every month	Alexandria
Sabine	First Wednesday of every month	
Tangipahoa	Second and fourth Thursdays of every month	Independence
Second District	Third Thursday of every month	
Shreveport	First Tuesday of every month	Shreveport
Vernon	First Thursday of every month	

HISTORY OF NEUROSURGERY IN WORLD WAR II FIRST VOLUME AVAILABLE

The first of two volumes on the history of neurosurgery in World War II was published in December. It is part of the monumental work on the **History of the Medical Department of the United States Army in World War II.** Editorial offices for the surgical volumes of the history are located at Tulane School of Medicine, and the editorial work is being done under a grant from the Office of the Surgeon General of the Army. Volume I deals with administrative considerations, which are recognized as of extreme importance in military medicine, and head injuries, and volume II, to be published late in the year, with injuries of the spinal cord and of the peripheral nerves. The first volume pays tribute to the extreme reluctance displayed by

neurosurgeons during the war to admit that any head injury was inevitably fatal. Among the numerous advances discussed at length are cranioplasty with modern agents, especially tantalum, the attention devoted to speech defects in aphasic patients, and the management of posttraumatic epilepsy. To date, eight volumes of the surgical portion of the history have appeared. The editors of the neurosurgical volumes are Dr. R. Glen Spurling, professor of neurosurgery at the University of Louisville School of Medicine, and Dr. Barnes Woodhall, professor of neurosurgery at Duke University School of Mediicne. Miss Elizabeth M. McFetridge is associate editor of the surgical volumes. Col. John Boyd Coates, MC, has editorial direction for all volumes of the History of the Medical Department.

FIFTY-THIRD ANNUAL MEETING THE OKLAHOMA STATE MEDICAL ASSOCIATION

This scientific and social function will be held at the Mayo Hotel, in Tulsa, Oklahoma, April 20 through 22, 1959. There will be no registration fee and the members of the Louisiana State Medical Society are invited to attend. Among the prominent speakers will be Dr. Isadore Dyer, Professor of Obstetrics and Gynecology, Tulane University School of Medicine, and Dr. William D. Davis, Associate Professor of Medicine, Tulane University School of Medicine.

For further information address the Tulsa County Medical Society, B 9 Medical Arts Building, Tulsa 19, Oklahoma.

16TH ANNUAL MEETING ASSOCIATION OF AMERICAN PHYSICIANS AND SURGEONS

The sixteenth annual meeting of the Assembly and Delegates of the Association of American Physicians and Surgeons will be held April 2, 3, 4, 1959, Hilton Hotel, Fort Worth, Texas. All sessions will be held at the Hilton Hotel, including the Board of Directors meeting on Wednesday evening, April 1 at 8:00.

Members and guests will be registered at the Hilton Hotel. **There is no registration fee.**

An invitation is extended to the ladies to attend all speaking sessions, the President's Luncheon and the Annual Banquet.

Dr. E. E. Anthony, Jr., of Fort Worth is annual meeting chairman.

COMING MEETINGS

The 1959 meeting of the American Goiter Association will be held in the Drake Hotel, Chicago, Illinois, April 30, May 1 and 2. The program for the three day meeting will consist of papers and discussion dealing with the thyroid gland, its physiology, pharmacology, pathology and therapy.

The American Venereal Disease Association will hold its annual meeting April 27 and 28, 1959, in the Auditorium of Johns Hopkins Hospital, Baltimore, Maryland, in cosponsorship with the United States Public Health Service of the Tenth Annual Symposium on Recent Advances in the Study of Venereal Diseases.

There will be an important meeting of the Sixth District Medical Society on March 24, at the Capital House Hotel, Baton Rouge. A symposium on early cancer will be held. Doctors John B. and Ruth Graham of Buffalo, New York will be guest speakers. All members are urgently requested to attend.

Four-Day Sectional Meeting for Surgeons and Nurses, The Queen Elizabeth Hotel, Montreal, Quebec, April 6-9. Doctors Harry S. Morton and Charles Edouard Hebert, Montreal, Local Chairmen for Surgeons Meeting, Miss Moyra Allen and Sister Denise Lefevre, Montreal, Local Chairmen for Nurses Meeting. Dr. Michael L. Mason, Secretary, 40 East Erie Street, Chicago 11, Illinois.

Annual Clinical Congress, American College of Surgeons, Atlantic City, New Jersey, September 28-October 2. Dr. Michael L. Mason, Secretary, 40 East Erie Street, Chicago 11, Illinois.

REFRESHER COURSES

A Series of Short Refresher Courses will be given during May and June 1959, by the Children's Hospital of Philadelphia and by the Graduate School of Medicine, University of Pennsylvania.

1. PEDIATRIC ADVANCES. May 25 through 29, 1959.

Conducted by the Staff of The Children's Hospital of Philadelphia. The curriculum will consist of clinics, demonstrations and panel discussions in selected aspects of contemporary pediatrics in which important advances are being made. NOTE: Interested physicians are urged to apply early, since total attendance is limited. Registration fee will be refunded if the registrant later finds it impossible to attend. TUITION: $115.00.

2. PRACTICAL PEDIATRIC HEMATOLOGY. June 1 through 5, 1959.

Conducted by Irving J. Wolman, M.D., Thomas R. Boggs, Jr., M.D. and other members of the Hematology Department of the Children's Hospital of Philadelphia. TUITION: $125.00.

The program on June 4 and 5 will be devoted to Problems of Blood Grouping, Neonatal Jaundice, Kernicterus and Exchange Transfusions.

Physicians may register for these 2 days only, if desired. TUITION: $50.00.

An illustrative collection of 25 abnormal blood and bone marrow slides has been prepared. These are available for purchase: $10.00 for registrants; $15.00 for non-registrants.

3. A POSTGRADUATE COURSE IN PRACTICAL PEDIATRICS for Physicians in Pennsylvania, New Jersey and Delaware.

Conducted by the Staff of the Children's Hospital of Philadelphia, Wednesday afternoons from 1:00 p.m. to 5:00 p.m., March 18 through June 4. TUITION: $100.00.

Inquiries should be addressed to Irving J. Wolman, M.D., Director of Post-Graduate Education, The Children's Hospital of Philadelphia, 1740 Bainbridge Street, Philadelphia 46, Pa.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next scheduled examinations (Part II), oral and clinical for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 8 through 19, 1959. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I Examinations will be notified of their eligibility for the Part II Examinations as soon as possible.

The deadline date for the receipt of new and reopened applications for the 1960 examinations is August the first, 1959. Candidates may submit their applications at any time before that date.

For further information contact Robert L. Faulkner, M.D., Secretary-Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

TULANE APPOINTS DR. BEAVER

Dr. Paul C. Beaver has been appointed the William Vincent Professor of Tropical Diseases and Hygiene at Tulane medical school. Dr. Beaver, formerly professor of parasitology, has been a member of the medical school faculty since 1945. Dr. Beaver succeeds Dr. Ernest Carroll Faust, who has reached retirement age but continues as field coordinator of the Tulane consultant program with the seven medical schools of Colombia, South America.

NO. 10 A.M.A. REVIEW BOOKLET RELEASED

The tenth annual publication of "Reviews of Medical Motion Pictures" is now available from the Film Library of the A.M.A. This publication is prepared by the Division of Communications, Department of Medical Motion Pictures and Television and contains reprints of all reviews published in The Journal A.M.A. during 1958.

LOUISIANA HEART ASSOCIATION ANNUAL MEETING APRIL 16-18

A special program for physicians will be conducted in conjunction with the Louisiana Heart Association's annual meeting in New Orleans April 16-18. The program for physicians will be held on Saturday, April 18, at the Roosevelt Hotel. According to the association, the agenda will cover many phases of cardiovascular diseases. On April 17, the association will conduct a special program for nurses at the Tulane University School of Medicine. There is no registration charge for the meeting.

GOVERNMENT HEALTH INSURANCE LOSING FAVOR IN ENGLAND

Contrary to expectations voluntary health insurance in England has not been eliminated by the government health insurance program.

In fact, the people of Great Britain are now purchasing voluntary health insurance at an increasing rate.

An examination of the 10-year British program has led a New York researcher to conclude that a government approach to health insurance is neither necessary nor desirable.

This is reported by J. F. Follman Jr., director, information and research, Health Insurance Association of America, in an article appearing in the Nov. 22 Journal of the American Medical Association.

In his report, the author said, "it would seem a truism that voluntary health insurance protection in the United States today is on much firmer ground than was the case in Great Britain prior to the formation of NHS."

NHS is the National Health Service which went into effect in 1948. Before government intervention, voluntary programs limited their coverage to loss of income due to accidents or illness. Little coverage was written in the way of hospital or medical cost insurance.

The purpose of NHS was to provide comprehensive medical care and services to all the people with the costs to be borne by funds derived from taxation (payroll deductions and general tax funds). The author said these services included hospital care, medical care given by a physician, dental care, ophthalmic care, and drugs and appliances.

He also cited four major reasons for the decline in interest in the government program and the sharp rise in contributions to the voluntary programs. These are:

—Continued increase of the cost of certain services provided under the government program. This is particularly true in the area of dental care, drugs, and optical appliances.

—Desire for private rooms which are not available under NHS.

—Limited number of government hospital beds. The author reports that at the end of

1956, it was estimated that 431,000 persons were on the NHS waiting list for hospital beds.

—Patients' lack of freedom of choice in the selection of surgeons, specialists, and consultants.

In conclusion, the author said, when one considers that health insurance in the United States is still growing rapidly, it would stand as a clear indication that a government approach on a broad population basis is neither necessary nor desirable.

RULES LISTED FOR PROTECTING CHILDREN FROM SEX PERVERTS

Nearly all sex offenders have one characteristic—timidity—that furnishes the most promising way to protect children from them, according to an American Medical Association publication.

Because the sex criminal is usually timid, he will leave a child alone if he is resisted by the child at the outset of an encounter. Seldom will he pursue a girl or boy unless the child goes along with what is suggested.

Thus the child must be taught to resist firmly but politely all invitations from strangers, Beatrice Schapper, New York City, said in the November Today's Health.

Teaching children to avoid situations that play into the hands of sex perverts is "one of the most delicate jobs parents face. But if you remember that sex offenders are generally timid the job becomes less difficult," the article said.

Most important is to make certain that children have a home where they feel loved, understood, and safe. Then they will come to their parents with anything out of the ordinary.

Children learn without harm other safety rules from their parents, and they can be taught to be cautious with strangers without being told all the horrible things that could happen.

For instance, a parent can combine admonitions such as "Look to the left and then to the right before starting across the street, and don't get in a car with a stranger."

The article listed some rules based on the recommendations of authorities and suggested that families work out their own list, expressing them in the youngster's own words. They are:

—Children should be told to report to parents, teachers, a policeman, storekeeper or other older persons any stranger who:

1. Asks a child to go anywhere with him—to a car, a private home, a movie, or for a walk. The child should say "no" politely and firmly.
2. Tries to talk with a child or touch him or his clothes in a theater. The child should tell an usher.
3. Tries to join children's games outside. Again, the man should be told "no" firmly but politely.
4. Offers candy or toys or a job with pay.

WOMAN'S AUXILIARY

TO THE LOUISIANA STATE MEDICAL SOCIETY

ORLEANS PARISH

Entertaining Wednesday afternoon, February 11, at the Orleans Club were the members of the Woman's Auxiliary to the Orleans Parish Medical Society. Mrs. William S. Neal registered the guests. Receiving in the drawing room with the president, Mrs. Albert William Habeeb, were the past presidents of the Auxiliary, Mmes. John S. Dunn, Edwin S. Socola, John Sanders, Boni J. DeLaureal, Spencer McNair, S. M. Blackshear, Francis E. LeJeune, Isadore Cohn, Jules Myron Davidson, Aynaud Hebert, J. W. Warren, Paul J. LaCroix, Robert Rougelot, Abe Golden and Eugene H. Countiss.

Miss Irene Ernst, Louisiana's Representative to the Brussels' World's Fair, was the guest speaker.

Alternating in presiding at the tea and coffee services during the tea hour were Mmes. Mercer Lynch, Branch J. Aymond, Shelly Gaines, Lucien Alexander, George Fruthaler, Lucien Delery, and Robert L. Simmons.

OUACHITA PARISH

The January meeting of the Woman's Auxiliary to the Ouachita Parish Medical Society was held with a luncheon at the Bayou DeSiard Country Club, Mrs. E. L. Carroll of Columbia, Louisiana presiding. The luncheon tables were attractively decorated with bronze and yellow mums, yellow candles, and green ivy. Mrs. Ralph Simpson served as chairman of the hostess committee, assisted by Mrs. Roy Ledbetter, Mrs. Ralph Talbot, Mrs. Roy Robertson, Mrs. J. W. Cummins and Mrs. A. L. Peters. Members and guests enjoyed a book review by Mrs. J. W. Schonlau, on "The History of Medicine in Louisiana," by the late Dr. Rudolph Matas.

Mrs. Branch J. Aymond, Chairman
Press and Publicity.

BOOK REVIEWS

The Pathogenesis of Coronary Occlusion; by A. D. Morgan, Springfield, Illinois, Charles C Thomas, 1957, Pp. 171, Price $8.50.

There has been an impressive increase in interest in the pathogenesis of atherosclerosis during the last decade and more particularly in the causes of occlusive disease of the coronary arteries. This greater concern has been more apparent in the number of papers dealing with biochemical alterations in affected subjects and in dietary studies than in further efforts to increase our understanding of the morphologic changes leading to occlusion. Indeed there is still considerable disagreement about how and why narrowing of the coronary arteries begins. The older conception of Rokitansky that intraluminal thrombosis is an important initiating mechanism in atherosclerosis has received considerable experimental support through the studies of Professor Duguid of the University of Durham.

Dr. Morgan's book is essentially a report of a detailed study of coronary arteries undertaken to test Duguid's ideas. Part one of the book consists of historical review of past work in the field. Part two presents in 100 pages and with 175 illustrations the author's own microscopic findings. His methods included the application of 6 different types of stain to serial sections of the affected arterial segments and examination of differently stained adjacent sections by means of two microscopes joined with a comparator eyepiece. The complex microscopic changes undergone by diseased coronary arteries are here presented with a degree of minuteness that will make the book of permanent value to the pathologist, but tedious enough to stall most clinicians. His studies have led the author to the conclusion . . . "that coronary occlusion, as distinct from the lesser degrees of coronary atherosclerosis, is the result of old or recent thrombosis, and that in this respect the coronary arteries differ from vessels of similar dimensions."

This reviewer believes that any pathologist called upon to interpret changes in coronary arteries will want this work on his shelf even should he disagree with the author's main conclusions, and clinicians interested in coronary disease will appreciate its availability for reference.

E. B. FERGUSON, JR. M.D.

The Dermatologist's Handbook; by Ashton L. Welsh, Charles C Thomas, Springfield, Illinois, 1957, Pp. 427, Price $15.00.

This valuable reference book brings together a large amount of information otherwise difficult to locate readily. It should be within easy reach of any one who treats skin disorders. Of particular interest is the section on dermatologic and systemic manifestations of reactions to therapeutic agents. In the next edition of this book, the structural formulas of the drugs listed should be given, for this would facilitate the recognition of possible cross sensitization.

V. J. DERBES, M.D.

Process of Psychotherapy, Vol. II; by Jules H. Masserman and T. L. Moreno, editors, New York, N. Y., Grune & Stratton, 1957, pp. 264, $7.50.

This volume is a compilation of various papers, many of which have been presented at meetings and some of which have been previously published. The list of contributors is impressive, and an essentially dynamic approach is utilized. Special emphasis is placed upon the problem of anxiety, and chapters on the stresses and techniques in later life are well developed. Interesting sections are concerned with various schools and trends in psychotherapy as well as development in psychotherapy in specific foreign countries. Many of the contributors deviate from orthodox views.

The attempt of this volume to present many theoretically diverse views is praiseworthy. It would seem to this reviewer that in attempting to present an eclectic viewpoint, proper emphasis has not been placed on dynamic concepts of personality development. This book is primarily intended for psychiatrists. Physicians other than psychiatrists, can find many other volumes that would be more practical and of interest to them.

GENE USDIN, M.D.

PUBLICATIONS RECEIVED

Grune & Stratton, Inc., N. Y.: Pulmonary Circulation, edited by Wright R. Adams, M. D., and Ilza Veith, Ph.D.; Industrial Carcinogens, by Robert E. Eckardt, M. D.

The C. V. Mosby Company, St. Louis: Physical Diagnosis; The History and Examination of the Patient, by John A. Prior, M. D., and Jack S. Silberstein, M. D.; Bone Tumors, by Louis Lichtenstein, M. D. (2nd edit.).

W. B. Saunders Co., Phila.: Vascular Surgery, by Geza de Takats, M. D.; Long-Term Illness, edited by Michael G. Wohl, M. D.; Practical Dermatology, by George M. Lewis, M. D. (2nd edit.); The Management of Fractures and Dislocations—An Atlas, Volumes I and II, by Anthony F. DePalma, M. D.; The Anatomy of the Nervous System; Its Development and Function, by Stephen Walter Ranson, M. D., revised by Sam Lillard Clark, M. D. (10th edit.); Diseases of the Colon and Anorectum, Volumes I and II, edited by Robert Turell, M. D.

Charles C Thomas, Publisher, Springfield, Ill.: Vascular Spiders and Related Lesions of the Skin, by William Bennett Bean, M. D.